

VERTICAL AIRFLOW ENGINE COOLING SYSTEM

Abstract of the Disclosure

A cooling system is provided for a non-rail off-road vehicle, such as an agricultural tractor having an engine with a horizontally oriented rotation axis and a hood covering the engine. The cooling system includes an engine cooling radiator positioned above the engine and between the engine and the hood and a fan unit with electric motor-driven fans blowing air upwardly through the radiator. The fan unit is positioned above the engine and between the engine and the radiator. An engine charge air cooler is also positioned above the engine and between the engine and the hood, and a charge air cooler fan unit has electric motor-driven fans which blow air upwardly through the cooler. The hood has openings in its upper surface through which passes air blown by the radiator fan unit and the charge air cooler fan unit. This cooling system blows heated cooling air vertically upwardly, thus preventing the heated cooling air from being drawn back into the intakes of the cooling system and preventing heated air from being blown onto the exterior of the tractor cab.